

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116

Serial Number: 09/833229

Filing Date: April 11, 2001

Title: APPARATUS AND METHOD FOR OUTPUTTING HEART SOUNDS

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Dkt: 279.337US1REMARKS

Applicant has reviewed the Office Action dated May 21, 2003, and the references cited therewith.

Claims 1 - 4, 9, 20, and 56 - 59 are amended. Claims 1 - 22, 56 - 65 and 73 - 77 are now pending in this application.

§102 Rejection of the Claims

In the Office Action, claims 1 - 3, 8 - 11, 13 - 16, 19 - 22 and 73 - 77 were rejected under 35 USC § 102(b) as being anticipated by Carlson et al. (U.S. Patent No. 5,792,195, "Carlson").

*Claim 1:*

Claim 1 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Carlson a teaching or suggestion of a plurality of sensors for detecting heart sounds and for generating sensed signals representative of the heart sounds, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

*Claims 2, 3, 8 and 73 - 75:*

Applicant respectfully traverses the rejection. Claims 2, 3, 8 and 73 - 75 depend on claim 1 and are believed to be allowable for at least the reason stated above for claim 1.

Applicant respectfully requests reconsideration and allowance of claims 2, 3, 8 and 73 - 75.

*Claim 9:*

Claim 9 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 9, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Carlson a teaching or suggestion of a control circuit that transmits the first data and the second data to the external system via the interface circuit for

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simultaneously outputting the first sensed signals and the second sensed signals, as recited in claim 9.

Applicant respectfully requests reconsideration and allowance of claim 9.

*Claims 10, 11, 13-16 and 19:*

Applicant respectfully traverses the rejection. Claims 10, 11, 13 - 16 and 19 depend on claim 9 and are believed to be allowable for at least the reason stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claims 10, 11, 13 - 16 and 19.

*Claim 20:*

Claim 20 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 20, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Carlson a teaching or suggestion of a control circuit that transmits the first, second and third data to the external system via the interface circuit for simultaneously outputting the first, second and third sensed signals, as recited in claim 20.

Applicant respectfully requests reconsideration and allowance of claim 20.

*Claims 21 and 22:*

Applicant respectfully traverses the rejection. Claims 21 and 22 depend on claim 20 and are believed to be allowable for at least the reason stated above for claim 20.

Applicant respectfully requests reconsideration and allowance of claims 21 and 22.

*Claims 76 and 77:*

Applicant respectfully traverses the rejection. Claims 76 and 77 depend on claim 59 and were rejected under 35 USC § 102(b) while base claim 59 is not rejected on the same basis. Applicant respectfully request a clarification or withdrawal of the rejection.

Applicant respectfully requests reconsideration and allowance of claims 76 and 77.

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Dkt: 279337US1*§103 Rejection of the Claims Using Carlson and Lekholm*

In the Office Action, claims 4 and 12 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Lekholm (U.S. Patent No. 4,763,646).

Applicant respectfully traverses the rejection. Claim 4 depends on claim 1 and is believed to be allowable at least for the reasons stated above for claim 1. Claim 12 depends on claim 9 and is believed to be allowable at least for the reasons stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claims 4 and 12.

*§103 Rejection of the Claims Using Carlson and Sholder*

In the Office Action, claims 5 and 6 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Sholder et al. (U.S. Patent No. 5,899,928).

Applicant respectfully traverses the rejection. Claims 5 and 6 depend on claim 1 and are believed to be allowable for at least the reason stated above for claim 1.

Applicant respectfully requests reconsideration and allowance of claims 5 and 6.

*§103 Rejection of the Claims Using Carlson and Turcott*

In the Office Action, claims 7 and 18 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Turcott (U.S. Patent No. 6,409,675).

Applicant respectfully traverses the rejection. Claim 7 depends on claim 1 and is believed to be allowable at least for the reasons stated above for claim 1. Claim 18 depends on claim 9 and is believed to be allowable at least for the reasons stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claims 7 and 18.

*§103 Rejection of the Claims Using Carlson and Tockman*

In the Office Action, claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Tockman et al. (U.S. Patent No. 5,540,727).

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Applicant respectfully traverses the rejection. Claim 17 depends on claim 9 and is believed to be allowable for at least the reason stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claim 17.

*§103 Rejection of the Claims Using Daum and Tockman, and Daum, Tockman, and Carlson*

In the Office Action, claims 1 – 3, 8, 56 – 59 and 62 – 65 were rejected under 35 USC § 103(a) as being unpatentable over Daum (U.S. Patent No. 6,453,201, “Daum”) in view of Tockman et al. (U.S. Patent No. 5,540,727), and claims 9 – 11, 13 – 16, 17 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Daum (U.S. Patent No. 6,453,201) in view of Tockman et al. (U.S. Patent No. 5,540,727) and further in view of Carlson et al. (U.S. Patent No. 5,792,195).

As indicated in the Office Action, for applications filed after November 29, 1999, the rejection might be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment by the same person.

Applicant respectfully submits that the present Application (U.S. Serial No. 09/833,229) and Daum (U.S. Patent No. 6,453,201) were, at the time the present invention was made, owned by Cardiac Pacemakers, Inc. by virtue of the assignments executed and filed for both of these applications. Thus, Applicant submits that claims 1 – 3, 8 – 11, 13 – 16, 17, 19, 56 – 59 and 62 – 65 are patentable pursuant to 35 U.S.C. 103(c) and MPEP §§ 706.02(l)(1)-(2). Applicant generally traverses the obviousness rejections in the Office Action.

Applicant respectfully requests reconsideration and allowance of claims 1 – 3, 8 – 11, 13 – 16, 17, 19, 56 – 59 and 62 – 65.

*§103 Rejection of the Claims Using Turcott and Tockman*

In the Office Action, claims 56 – 59 were rejected under 35 USC § 103(a) as being unpatentable over Turcott (U.S. Patent No. 6,409,675, “Turcott”) in view of Tockman et al. (U.S. Patent No. 5,540,727, “Tockman”).

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Dkt: 279.337US1*Claim 56:*

Claim 56 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 56, Applicant respectfully traverses the rejection and submits that the Office Action has not set forth a proper *prima facie* case of obviousness.

The Office Action specifically cited "(Col. 3, line 66-Col. 4, line 4, lines 49-55)" of Tockman. Col. 4, lines 49-55 of Tockman do not appear to support the assertion made in the Office Action. It is unclear to which column the "lines 49-55" were meant to belong. Applicant respectfully requests a clarification or the withdrawal of the assertion associated with this citation in the next official communication.

Pursuant to M.P.E.P. § 2143.01, the fact that references can be combined or modified does not render the resultant combination or modification obvious unless the prior art also suggests the desirability of the combination or modification. Applicant is unable to find in Turcott a suggestion or motivation to generate data representative of heart sounds using the ensemble averaging of Tockman. Thus, it is believed that the proposed combination of references fails to suggest the desirability of such modification, and is therefore not a proper basis for an obviousness rejection.

Applicant respectfully traverses the assertion that "it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Turcott with generating data representative of heart sounds using ensemble averaging as Tockman et al. teaches in order to eliminate transient non-periodic noise." Applicant requests a reference pursuant to M.P.E.P. § 2144.03 to support this assertion or its withdrawal in the next official communication.

Additionally, Applicant is unable to find in Turcott, among other things, a teaching or suggestion of detecting heart sounds using a plurality of implanted sensors, as recited in claim 56.

Applicant respectfully requests reconsideration and allowance of claim 56.

*Claims 57 and 58:*

Applicant respectfully traverses the rejection. Claims 57 and 58 depend on claim 56 and are believed to be allowable at least for the reason stated for claim 56.

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Applicant respectfully requests reconsideration and allowance of claim 57 and 58.

*Claim 59:*

Claim 59 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 59, Applicant respectfully traverses the rejection. Because claim 56 and claim 59 were rejected together with the same statements in the Office Action, the discussions and requests made above for claim 56 are repeated herein to support the patentability of claim 59.

Additionally, Applicant is unable to find in Turcott, among other things, a teaching or suggestion of generating timing comparison control signals indicative of a timing of the control signals, and applying the control signals and the timing comparison control signals to an output device to cause the output device to generate outputs which are representative of the heart sounds and timing information related to the heart sounds, as recited in claim 59.

Applicant respectfully requests reconsideration and allowance of claim 59.

*§103 Rejection of the Claims Using Turcott, Tockman, and Baumann*

In the Office Action, claims 60 and 61 were rejected under 35 USC § 103(a) as being unpatentable over Turcott (U.S. Patent No. 6,409,675) in view of Tockman et al. (U.S. Patent No. 5,540,727) as applied to claim 59 and further in view of Bauman et al. (U.S. Patent No. 5,836,987).

Applicant respectfully traverses the rejection. Claims 60 and 61 depend on claim 59 and are believed to be allowable at least for the reason stated for claim 59.

Applicant respectfully requests reconsideration and allowance of claim 60 and 61.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6912 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

AVRAM SCHEINER ET AL.

By their Representatives,

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Date

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I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

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